REMARKS

Applicants have amended the claims to require that the elastic filament be a monofilament fiber and that the fiber be part of a yarn that includes an inelastic fiber. Support for these amendments can be found, for example, at page 4, line 26 and at page 6, line 13. Newly added claim 21 is supported from the Examples which use 19.2 mrad, 22.4 mrad or 32 mrad of ionizing radiation. With the cancellation of claim 8, it is believed that no additional fees are required because of newly added claim 21, but should this be in error, the commissioner is hereby authorized to charge the additional fees to Deposit Account 04-1512. As no new matter is incorporated, their entry is courteously requested.

The Examiner has objected to claim 8 as not further limiting the subject matter of the claim from which it depends. Applicants agree and have accordingly cancelled the claim in this office action.

I. Prior art with respect to elastic fabric comprising a yarn comprising a monofilament crosslinked olefin fiber and an inelastic fiber

As amended, the claims require an elastic article or garment comprising a yarn. The yarn comprises 1) a monofilament olefin fiber that will recover at least about 50% of its stretched length after the first pull and after the fourth pull to 100% strain and 2) an inelastic fiber. The applicants have discovered that using the crosslinked olefin fiber in a yarn offers greater protection against breakage in the knitting or weaving operation, greatly facilitating the fabric production.

It is believed that none of the references cited by the Examiner disclose yarns comprising both an inelastic fiber the elastic fiber and a monofilament crosslinked olefin fiber that will recover at least about 50% of its stretched length after the first pull and after the fourth pull to 100% strain.

In particular Stutz (US3396529) fails to disclose any mention of fibers made from crosslinked olefin, and in fact it is clear that the materials envisioned by Stutz are not intended to be inherently elastic, but are made that way through a twisting process. As the twisting process of Stutz is taught to be performed on the yarn and not any component thereof, Stutz would not

meet the claims as amended which require a monofilament olefin fiber that will recover at least about 50% of its stretched length after the first pull and after the fourth pull to 100% strain. This point is emphasized when Stutz states that its highly twisted multifilament yarn is to be used "in lieu of elastomer synthetic stretch yarns" (column 2, line 11).

WO (99/63021) ("Ho") does not mention the desirability or even the possibility of using inelastic fiber together with a continuous elastic filament as is now required by the claims. Ho is silent as to forming a yarn which includes the crosslinked elastic olefin fiber together with an inelastic fiber, with the implication being that if a woven article were to be made (keeping in mind that the vast majority of the disclosure was not directed to such an application) then it would be made with a bare elastic olefin fiber. As stated above, the applicants have discovered that forming the yarn with the inelastic fiber allows greater protection against breakage in the knitting or weaving operation, greatly facilitating the fabric production.

US 5,529,830 ("Dutta") does not disclose crosslinked elastic olefin fibers, and certainly does not disclose a yarn made from such crosslinked olefin fibers as now required in the present claims. Rather than crosslinked olefin fibers, the elastic fiber disclosed by Dutta are the polyurethane based fibers known as spandex (see col. 10, line 47), but even disregarding that substantial difference, there is still no apparent reference to using a yarn comprising the elastic fiber together with a nonelastic fiber.

US 6,140,442 ("Knight") and US 6,194,532 ("Maugans") are both related to fiber being made from particular linear low polyethylene materials. There is no apparent description of crosslinking, nor is there a suggestion to use the olefin fiber together with inelastic fiber to form a yarn in either of these references. Accordingly, neither of these references teach a "a yarn comprising a monofilament crosslinked olefin fiber that will recover at least about 50% of its stretched length after the first pull and after the fourth pull to 100% strain and an inelastic fiber" as now required by the claims.

US 6,666,235 ("Chi") is directed to denim fabric comprising a yarn having a blend of cotton and high strength fibers or alternatively a yarn having a sheath/core construction comprising a natural fiber and a high strength fiber. The "high strength" fiber in Chi is said to include polyolefins (column 4, line 28), but there is no suggestion that the polyolefin be

crosslinked or elastic. In fact, given the requirement for increased abrasion resistance (see col. 3, line 33) it would lead a skilled practitioner away from choosing an elastic fiber as elasticity is generally known to run counter to materials having high abrasion resistance.

US 6,337,313 ("Rodrigues") states that suitable textiles to be treated with its hydrophobically modified polymer include polyolefins, but again, there is no suggestion that such polyolefins be crosslinked, nor is their any suggestion that the polyolefin material be used in a yarn with an inelastic fiber.

The April 1994 article in the Daily News Record, "New Polyolefin Fiber Blend Makes Jeans WR and Quick Drying", discloses staple fibers which may be made from an olefin material. By definition, staple fibers are not a monofilament fiber. Moreover there is no suggestion that such fibers be elastic, and no suggestion that they be used in a yarn with an inelastic fiber, as now recited in the claims.

Accordingly none of the art cited by the Examiner discloses a yarn comprising a monofilament olefin fiber that will recover at least about 50% of its stretched length after the first pull and after the fourth pull to 100% strain and an inelastic fiber. As this yarn is now required in each of the claims, applicants respectfully request a withdrawal of the outstanding rejections.

II. Patentability based on recited treatments.

Claim 1 also affirmatively requires the article to be a treated article. The Examiner has characterized the claims reciting these treatments as being product-by-process claims. With regards to such claims, MPEP 2113 states, "Once a product appearing to be substantially identical is found and a 35 USC 102/103 rejection made, the burden shifts to the applicant to show an unobvious difference". The key here is that the Examiner has not shown a product appearing to be substantially identical, as the treatments are transformational in nature, as would be understood by a person of ordinary skill in the art. It is common knowledge to one of ordinary skill in the art that an "acid-washed", "stoned wash", "mercerized" or "pre-washed" garment is not the same as a greige fabric. That such processes produce a different product is further supported by one of the references cited by the Examiner, US 6,337,313 to Rodrigues.

That reference details the transformational nature of these treatments (see column 2 line 61 to column 3, line 38). For example Rodrigues states that, "'Mercerizing' is used to swell cotton fibers in order to increase their luster, strength, and dyeability". A method which changes a fiber's luster, strength or dyeability is clearly a method which results in a different fiber. As the fact that these treatments are transformational is adequately supported by the references of record, and is readily understood by those of ordinary skill in the art, it is respectfully submitted that no experimental data is necessary as requested by the Examiner.

III. Separate patentability of newly added claim 21.

Newly added claim 21 specifies that the monofilament olefin fiber is subjected to at least 19.2 mrad of ionizing radiation, which will result in a higher level of crosslinking, making the resulting yarns, articles and garments more stable. Ho, the only one of the references cited by the Examiner which discusses crosslinked olefin fiber, on the other hand uses a maximum of 12 mrad (see Tables 2 and 3). Thus, this is a separate reason for finding claim 21 patentable.

Therefore, in view of the above amendments and arguments, Applicants believe the pending application is in condition for allowance, and, therefore, courteously request that the Examiner promptly issue a Notice of Allowance.

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